

REMARKS

Status of the Claims

Claims 4 – 5, 21 – 22, and 26 – 28 were withdrawn from consideration in response to the Examiner's Restriction notice. Claims 1, 14, 16, and 23 – 24 have been amended, Claims 6 and 15 were cancelled, and Claims 1 – 3, 7 – 14, 16 – 20, and 23 – 25 are now pending. Support for the amendments can be found in the application in at least original claims 6 and 15, at page 6, lines 4 – 22, at page 9, line 15, page 14, lines 21 – 24, and in the Figures.

Election/Restriction

Applicants affirm that they have elected claims 1 – 3, 6 – 20, and 23 – 25, pertaining to the hydraulic species ("Species B") of the invention. Applicants elect these claims with traverse, in that the other claims, pertaining to the electric and pneumatic species of the invention, may be efficiently searched along with the elected claims.

Objection to the Oath/Declaration

The Examiner objected to the oath and declaration as it did not indicate the citizenship of the inventors. With this filing, Applicants have submitted a new declaration and oath by one inventor and by the other inventor's legal representative. Applicants therefore respectfully request that the Examiner withdraw the objection.

Objection to the Drawings

The Examiner has set forth three objections to the drawings. The Examiner objected to Figure 3 in that a transfer assembly, referenced by reference number 50, was incorrectly labeled with reference number 67, which is a current sensor. The Examiner further objected to Figure 9 in that gear 173 was mistakenly labeled "73" and that output shaft 169 was mistakenly labeled "168".

Applicants have corrected Fig. 3 to re-label the left-side gear as gear 68. Applicants have corrected Fig. 9 to re-label the left gear as gear 173 and the right shaft as shaft 168, in accordance with the Examiner's suggestion. Applicants request that the objection to these Figures be withdrawn. The full drawing sheets are provided for

the Examiner's convenience. Revised formal drawings will be submitted upon receiving a notice of allowance. Therefore, Applicant requests that the objections to the drawings of the application be withdrawn.

Objections to the Specification

The Examiner has made objections to the disclosure of the specification on eight grounds. Applicants have made the corrections requested by the Examiner. Applicants therefore respectfully request that the Examiner withdraw these objections to the specification.

The Examiner has also objected to the specification as not providing a proper antecedent basis for the phrases "do work" and "work done" in Claims 23 and 24. In response to the Examiner's rejection under 35 U.S.C. §112, paragraph 2, Applicants have amended these claims. Applicants believe that the claims, as amended, have proper antecedent basis in the specification, at least on p. 7, lines 3-14. Applicants therefore request that the Examiner withdraw his objection to the specification with respect to these terms.

Objection to the Claims

The Examiner has objected to Claim 24 for an incorrect reference to an independent claim. Claim 24 has been amended. Applicants therefore request that the Examiner withdraw his objection to Claim 24 as amended.

Rejection of Claim 2 Under 35 U.S.C. §112, paragraph 1

The Examiner has objected to Claim 2 for not being enabled by the specification. The Examiner notes the specification at p. 6, lines 4-22, and states that the specification is enabling for transferring work from the second transfer assembly so long as the amount of work is less than or equal to the amount of work from the first transfer assembly. However, Claim 2 already includes this exact claim, that is, the amount of work from the second transfer assembly and output shaft is less than or equal to the amount of work from the first transfer assembly. The Examiner is respectfully requested to withdraw the objection to Claim 2.

Rejection of Claims 1 – 3, 6 – 8, and 23 – 25 under 35 U.S.C. §112, paragraph 2

The Examiner has rejected Claims 1 – 3, 6 – 8, and 23 – 25 as indefinite under 35 U.S.C. §112, paragraph 2. Applicants traverse the Examiner's rejection of Claim 1, and its dependent claims, under U.S.C. §112, paragraph 2. Line 4 of Claim 1 does not claim a "transfer assembly," but rather "each output shaft having an interface to a transfer assembly." Therefore, there is no double inclusion when line 5 of Claim 1 goes on to positively recite "at least a first and a second transfer assembly."

Applicants also traverse the rejections of claims 23 and 24. As pointed out by the Examiner, Claim 23 claims a torque controller wherein the first shaft and transfer assembly do work and a second transfer assembly and shaft have work done. The specification states that the slipping wheel "does work or supplies power," thus transferring power through its transfer assembly, and the gripping wheel "has work done to it," i.e., receives power through its shaft and transfer assembly. Specification, p. 7, lines 6-11. Therefore, the Applicants have chosen to be their own lexicographers by using this particular terminology. Nevertheless, in order to advance prosecution of the application, and without narrowing the claims, Applicants have amended Claims 23 and 24 as suggested by the Examiner.

Rejection of Claims 1 – 3 and 9 – 13 Under 35 U.S.C. §102(b)

The Examiner has rejected Claims 1 – 3 and 9 – 13 as anticipated by U.S. Patent No. 4,776,235 to Gleasman *et al.* ("Gleasant") under 35 U.S.C. §102(b). Applicants have amended Claim 1, and submit that it is allowable over Gleasant. Applicants further submit that Claim 9 is allowable over Gleasant, and traverse the Examiner's rejection of this claim.

Applicants have amended Claim 1 to include the limitations of former Claim 6; namely, a controller controllably connected to the torque difference source and transfer assemblies that receive inputs from at least two sensors indicative of the shafts' output power. Gleasant does not include this limitation, as pointed out by the Examiner. See Office Action at page 10, lines 4 – 5. Applicants therefore submit that Gleasant does

not anticipate or disclose Claim 1 as amended. Applicants further submit that Claims 2 and 3 are dependent on Claim 1, and are therefore also overcome the rejection.

Applicants traverse the Examiner's rejection of Claim 9 under Gleasman. Gleasman discloses a system in which the interfaces are created via gears and other mechanical connections. Gleasman does not disclose a system which senses shaft output power. Gleasman discloses a system in which power supplied to an axle that has lost its traction is applied to the opposite axle where traction still exists. (Gleasman at col. 4, lines 25 – 30). Gleasman further does not disclose a system capable of determining on its own whether a correction in output power is needed. Gleasman therefore does not anticipate or disclose the method of claim 9. Claims 10 – 13, dependant on Claim 9, and are also not disclosed or suggested by Gleasman. Applicants therefore respectfully request the Examiner withdraw the rejection of Claims 9 – 13.

Rejection of Claims 6 – 8, 14 – 20, and 23 – 25 Under 35 U.S.C. §103(a)

The Examiner has rejected Claims 6 – 8, 14 – 20, and 23 – 25 as being anticipated by Gleasman and U.S. Patent No. 6,520,880 to Fukushima *et al* ("Fukushima") under 35 U.S.C. §103(a). The Examiner's motivation to combine the Gleasman and Fukushima references is insufficient. The Examiner states that it would have been obvious to modify Gleasman to include a motor having an inner and an outer rotor, and which is powered by a hydraulic pump, and a controller for controlling and monitoring the power. The controlling and monitoring would be based on the input of various sensors, in view of Fukushima, in order to effectively and controllably optimize the traction of a motor vehicle. The Gleasman reference is directed towards a device for preventing slip in wheeled and tracked vehicles. See Gleasman at col. 1, lines 36 – 43. As such, the device of the Gleasman reference must accurately detect and respond to changes in shaft output power. In contrast, the Fukushima reference is directed towards a device enabling action control of the right and left wheel shafts in a wheeled vehicle. (See Fukushima at col. 1, lines 11 – 14). Such a device relies upon other conditions to determine traction distribution, such as vehicle speed and steering angle. As the two references address different problems with different vehicular concerns, one

would not be motivated, as the Examiner asserts, to add the components of Fukushima to solve a problem not present in the Gleasman reference, namely traction distribution in cornering and other distribution situations.

As noted above, Applicants have already amended Claim 1 to include the limitations of Claim 6, and Applicants respectfully submit that dependent Claims 7 and 8 are allowable over Gleasman and Fukushima. Even the improperly-combined references of Gleasman and Fukushima do not disclose all the limitations of the inventions claimed in Claims 7 and 8. Amended Claim 14, including all the limitations of cancelled Claim 15, is also allowable over Gleasman and Fukushima, as is amended Claim 23. Even the improperly combined references do not include all the limitations of the inventions claimed in Claims 14 and 23, or in claims depending from them, Claims 19-20 and Claims 24-25. Applicants traverse this rejection under 35 U.S.C. §103(a).

Claims 7 and 8, depending from amended Claim 1, include elements not found in the references. Gleasman, as pointed out by the Examiner in the Office Action on page 10, line 5, does not describe or suggest the limitation of a controller controllably connected to the torque difference source and transfer assemblies that receive inputs from at least two sensors indicative of the shafts' output power. Further, Fukushima does not recite sensors that are indicative of the power output of the shafts. Instead, Fukushima recites sensors used to measure vehicular speed or steering angle. Fukushima, col. 5, lines 50 – 53. The sensors of Fukushima are different from the claimed sensors because steering angle and vehicular speed represent composite or overall performance of the vehicle, while sensors on the shafts themselves allow for decisions and control based on the individual performance of each wheel and its associated shaft.

Fukushima does not disclose control decisions based upon power output changes. Instead, Fukushima is directed more towards efficient cornering and handling, not to combating slip. See, e.g., Fukushima, col. 1, lines 36 – 44. Applicants therefore submit that Fukushima, alone or in combination with Gleasman, does not anticipate or suggest the amended Claim 1. Applicants further submit that Claims 7 and 8, dependent on Claim 1, are also not described or suggested by Gleasman and Fukushima.

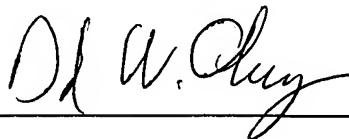
Applicants have amended Claim 14 to include the limitations of former Claim 15, namely, means for measuring power in the first and second shafts. Gleasman does not include this limitation, as pointed out by the Examiner. Further, Fukushima does not recite any means to measure information indicative of the power output of the shafts. Instead, Fukushima recites sensors used to measure vehicular speed or steering angle. Col. 5, lines 50 – 53. Fukushima does not disclose control decisions based upon power output changes. Instead, the object of Fukushima is directed more towards efficient cornering and handling, not to combating slip. Col. 1, lines 36 – 44. Applicants therefore submit that Fukushima, alone or in combination with Gleasman, does not anticipate or suggest amended Claim 14. Applicants further submit that Claims 16 through 20, dependent on Claim 14, therefore are also not described or suggested in the references.

Claim 23 recites a transfer assembly comprising a speed-up gear train. Fukushima does not disclose a transfer assembly. The transfer assembly disclosed in Gleasman does not recite a speed-up assembly. In fact, the gear or drive ratio between the control shafts and axle shaft, which corresponds to the drive ratio of the transfer assembly of the present invention, is stated to be preferably 1:1. As such, Gleasman does not recite a speed-up transfer assembly. Applicants therefore submit that Fukushima, alone or in combination with Gleasman, does not anticipate or suggest the arrangement of Claim 23. Applicants further submit that claims 24 and 25, dependent on Claim 23, and therefore are also not described or suggested by Fukushima, alone or in combination with Gleasman.

CONCLUSION

For the foregoing reasons, the rejections set forth by the Examiner have been overcome. Applicants therefore believe that the application is therefore in condition for allowance. Favorable reconsideration of the application is respectfully requested. If for any reason, the Examiner is unable to allow the application but believes that an interview would be helpful to resolve any issues, he is respectfully requested to call the undersigned at (312) 321-4711.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "D. W. Okey", is written over a horizontal line.

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